

## ABSTRACT

The punctured pilot channel comprises information symbols of uncertain sign punctured into a sequence of pilot channel symbols of predetermined sign. The apparatus includes an information sign demodulation circuit for determining the sign of the information symbols in response to the pilot channel symbols. A continuous pilot generator generates a non-punctured pilot channel of predetermined sign from the information symbols and the pilot channel symbols. In a first embodiment, the information sign demodulator further comprises a dot product circuit for calculating a dot product of the pilot channel symbols and the punctured information symbols, and a threshold comparator for comparing the dot product to a predetermined threshold.